

3 number of data packets received by the digital receiver and a number of data packets that should
4 have been received by the digital receiver.

1 6. The apparatus of claim 5, wherein the service level determiner maps the data
2 packet loss percentage value of the data test stream into a service level diagnostic.

1 7. The apparatus of claim 6, further comprising a display device to display a service
2 level diagnostic indicator based upon the service level diagnostic to indicate the service level of
3 the digital television broadcast signal.

1 8. The apparatus of claim 1, further comprising a display device to display a service
2 level diagnostic indicator based upon the loss of data packets from the data test stream to indicate
3 the service level of the digital television broadcast signal.

1 9. The apparatus of claim 8, wherein the service level diagnostic indicator is a bar
2 shaped meter indicating a service level range from 0% to 100%.

1 10. The apparatus of claim 8, wherein the service level diagnostic indicator is updated
2 at predetermined intervals.

1 11. The apparatus of claim 8, wherein the display device is a television.

1 12. The apparatus of claim 1, wherein the digital television broadcast signal is
2 communicated from a terrestrial broadcast station.

1 13. The apparatus of claim 1, wherein the digital television broadcast signal is
2 communicated via a satellite network.

1 14. The apparatus of claim 1, wherein the service level determiner is implemented
2 with a set-top box.

1 15. A method comprising:
2 receiving a digital television broadcast signal that includes a data test stream having a
3 plurality of data packets;
4 determining a service level of the digital television broadcast signal based upon a loss of
5 data packets from the data test stream; and
6 displaying the service level.

1 16. The method of claim 15, wherein the data test stream is an Internet Protocol (IP)
2 based data test stream.

1 17. The method of claim 15, wherein the data test stream is an Internet Protocol (IP)
2 based data test stream locatable on a given Packet Identifier (PID) of the digital television
3 broadcast signal and the IP based data test stream includes sequentially numbered packets.

1 18. The method of claim 15, wherein determining the service level of the digital
2 television broadcast signal service further comprises:

3 measuring a number of data packets of the data test stream received by the digital
4 television receiver over a predetermined interval.

1 19. The method of claim 18, wherein determining the service level of the digital
2 television broadcast signal further comprises:

3 determining a data packet loss percentage value for the data test stream by calculating a
4 ratio of the measured number of data packets received by the digital receiver and a number of
5 data packets that should have been received by the digital receiver.

1 20. The method of claim 19, wherein determining the service level of the digital
2 television broadcast signal service further comprises:

3 mapping the data packet loss percentage value of the data test stream into a service level
4 diagnostic representative of the service level of the digital television broadcast signal.

1 21. The method of claim 20, wherein displaying the service level of the digital
2 television broadcast signal service further comprises:

3 displaying a service level diagnostic indicator based upon the service level diagnostic to
4 indicate the service level of the digital television broadcast signal.

1 22. The method of claim 15, wherein displaying the service level of the digital
2 television broadcast signal service further comprises:

3 displaying a service level diagnostic indicator based upon the loss of data packets from
4 the data test stream on a display device to indicate the service level of the digital television
5 broadcast signal.

1 23. The method of claim 22, wherein the service level diagnostic indicator is a bar
2 shaped meter indicating a service level range from 0% to 100%.

1 24. The method of claim 22, wherein displaying the service level of the digital
2 television broadcast signal service further comprises:

3 updating the service level diagnostic indicator at predetermined intervals.

1 25. The method of claim 22, wherein the display device is a television.

1 26. The method of claim 15, wherein the digital television broadcast signal is
2 communicated from a terrestrial broadcast station.

1 27. The method of claim 15, wherein the digital television broadcast signal is
2 communicated via a satellite network.

1 28. The method of claim 15, wherein determining the service level of the digital
2 television broadcast signal and displaying the service level is implemented with a set-top box.

1 29. A machine-readable medium having stored thereon instructions, which when
2 executed by a processor, causes the processor to perform the following:

3 receiving a digital television broadcast signal that includes a data test stream having a
4 plurality of data packets;

5 determining a service level of the digital television broadcast signal based upon a loss of
6 data packets from the data test stream; and

7 displaying the service level.

1 30. The machine-readable medium of claim 29, wherein the data test stream is an
2 Internet Protocol (IP) based data test stream.

1 31. The machine-readable medium of claim 29, wherein the data test stream is an
2 Internet Protocol (IP) based data test stream locatable on a given Packet Identifier (PID) of the
3 digital television broadcast signal and the IP based data test stream includes sequentially
4 numbered packets.

1 32. The machine-readable medium of claim 29, wherein determining the service level
2 of the digital television broadcast signal service further comprises:

3 measuring a number of data packets of the data test stream received by the digital
4 television receiver over a predetermined interval.

1 33. The machine-readable medium of claim 32, wherein determining the service level
2 of the digital television broadcast signal further comprises:

3 determining a data packet loss percentage value for the data test stream by calculating a
4 ratio of the measured number of data packets received by the digital receiver and a number of
5 data packets that should have been received by the digital receiver.

1 34. The machine-readable medium of claim 33, wherein determining the service level
2 of the digital television broadcast signal service further comprises:

3 mapping the data packet loss percentage value of the data test stream into a service level
4 diagnostic representative of the service level of the digital television broadcast signal.

1 35. The machine-readable medium of claim 34, wherein displaying the service level
2 of the digital television broadcast signal service further comprises:

3 displaying a service level diagnostic indicator based upon the service level diagnostic to
4 indicate the service level of the digital television broadcast signal.

1 36. The machine-readable medium of claim 29, wherein displaying the service level
2 of the digital television broadcast signal service further comprises:

3 displaying a service level diagnostic indicator based upon the loss of data packets from
4 the data test stream on a display device to indicate the service level of the digital television
5 broadcast signal.

1 37. The machine-readable medium of claim 36, wherein the service level diagnostic
2 indicator is a bar shaped meter indicating a service level range from 0% to 100%.

1 38. The machine-readable medium of claim 36, wherein displaying the service level
2 of the digital television broadcast signal service further comprises:

3 updating the service level diagnostic indicator at predetermined intervals.

1 39. The machine-readable medium of claim 36, wherein the display device is a
2 television.

1 40. The machine-readable medium of claim 29, wherein the digital television
2 broadcast signal is communicated from a terrestrial broadcast station.

1 41. The machine-readable medium of claim 29, wherein the digital television
2 broadcast signal is communicated via a satellite network.

1 42. The machine-readable medium of claim 29, wherein determining the service level
2 of the digital television broadcast signal and displaying the service level is implemented with a
3 set-top box.

1 43. A system comprising:

2 a set-top box including,

3 a digital television receiver to receive a digital television broadcast signal, the
4 digital television broadcast signal including a data test stream having a plurality of data
5 packets; and

6 a service level determiner to determine a service level of the digital television
7 broadcast signal based upon a loss of data packets from the data test stream and to cause
8 the service level to be displayed; and

9 a display device to display the digital television broadcast signal and the service level.

10 44. The system of claim 43, wherein the data test stream is an Internet Protocol (IP)
11 based data test stream.

12 45. The system of claim 43, wherein the data test stream is an Internet Protocol (IP)
13 based data test stream locatable on a given Packet Identifier (PID) of the digital television
14 broadcast signal and the IP based data test stream includes sequentially numbered packets.

15 46. The system of claim 43, wherein the service level determiner measures a number
16 of data packets of the data test stream received by the digital television receiver over a
17 predetermined interval.

1 47. The system of claim 46, wherein the service level determiner determines a data
2 packet loss percentage value for the data test stream by calculating a ratio of the measured
3 number of data packets received by the digital receiver and a number of data packets that should
4 be received by the digital receiver.

1 48. The system of claim 47, wherein the service level determiner maps the data
2 packet loss percentage value of the data test stream into a service level diagnostic.

1 49. The system of claim 48, wherein the display device displays a service level
2 diagnostic indicator based upon the service level diagnostic to indicate the service level of the
3 digital television broadcast signal.

1 50. The system of claim 43, wherein the display device displays a service level
2 diagnostic indicator based upon the loss of data packets from the data test stream to indicate the
3 service level of the digital television broadcast signal.

1 51. The system of claim 50, wherein the service level diagnostic indicator is a bar
2 shaped meter indicating a service level range from 0% to 100%.

1 52. The system of claim 50, wherein the service level diagnostic indicator is updated
2 at predetermined intervals.

1 53. The system of claim 43, wherein the display device is a television.

1 54. The system of claim 43, wherein the digital television broadcast signal is
2 communicated from a terrestrial broadcast station.

1 55. The system of claim 43, wherein the digital television broadcast signal is
2 communicated via a satellite network.

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